

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. - 16. (Canceled)

17. (Previously Presented) A muffler that is configured to discharge exhaust from a machine having one of an engine and a compressor, the muffler comprising:

an outer muffler shell;

a first exhaust tube;

a tubular member formed inside the muffler shell, wherein a portion of the tubular member is arranged inside the muffler shell on an upstream end of the muffler in a direction of exhaust flow, wherein a first end of the tubular member is in fluid communication with the first exhaust tube, wherein a second end of the tubular member is in fluid communication with a space inside of the muffler shell, and wherein the tubular member is configured to attenuate acoustic energy of a first frequency band;

a resonator set protruding from and formed of the portion of the tubular member, wherein the resonator set is configured to attenuate acoustic energy of a second frequency band, which is different from the first frequency band and which modulates the first frequency band; and

a second exhaust tube configured to discharge exhaust in the space inside the muffler shell to the atmosphere.

18. (Previously Presented) The muffler according to claim 17, wherein the resonator set comprises at least two resonators, and wherein each of the resonators has a first end opening to an inner face of the tubular member and a closed second end.

19. (Previously Presented) The muffler according to claim 17, wherein the resonator set comprises at least one resonator, wherein the resonator has a first end opening to an inner face of the tubular member and a closed second end, and wherein a plane defined by the closed second end is not parallel to a plane defined by the first end.

20. (Canceled)

21. (Canceled)

22. (Previously Presented) The muffler according to claim 17, wherein the resonator set comprises at least one resonator, and wherein each of the resonators is open to an inner face of the tubular member.

23. (Previously Presented) The muffler according to claim 18, wherein each of the resonators comprises noise absorbing material and a scatter preventative part.

24. (Previously Presented) The muffler according to claim 19, wherein each of the resonators comprises noise absorbing material and a scatter preventative part.

25. (Previously Presented) The muffler according to claim 22, wherein each of the resonators comprises noise absorbing material and a scatter preventative part.

26. (Previously Presented) The muffler according to claim 17, wherein the second exhaust tube extends into the space inside the muffler shell.

27. (Previously Presented) The muffler according to claim 18, wherein a distance between the closed end of a first of the two resonators and the tubular member differs from a distance between the closed end of the second of the two resonators and the tubular member.

28. (Previously Presented) The muffler according to claim 17, wherein the resonator set comprises at least one resonator, wherein the resonator has a first end opening to an inner face of the tubular member and a closed second end, and wherein a distance between a first end of the closed end of the resonator and the tubular member differs from a distance between a second end of the closed end of the resonator and the tubular member.

29. (New) A muffler that is configured to discharge exhaust from a machine having one of an engine and a compressor, the muffler comprising:

a front end plate, a rear end plate, and at least one side wall that constitute an outer muffler shell, wherein a tubular member serves as the front end plate;

a first exhaust tube;

a resonator set; and

a second exhaust tube,

wherein a portion of the tubular member is arranged inside the muffler shell on an upstream end of the muffler in a direction of exhaust flow, wherein a first end of the tubular member is in fluid communication with the first exhaust tube, wherein a second end of the tubular member is in fluid communication with a space inside the muffler shell, and wherein the tubular member is configured to attenuate acoustic energy of a first frequency band,

wherein the resonator set protrudes from and is formed of the portion of the tubular member, wherein the resonator set is configured to attenuate acoustic energy of a second frequency band, which is different from the first frequency band and which modulates the first frequency band, and

wherein the second exhaust tube is configured to discharge exhaust in the space inside the muffler shell to the atmosphere.

30. (New) The muffler according to claim 29, wherein the resonator set comprises at least two resonators, and wherein each of the resonators has a first end opening to an inner face of the tubular member and a closed second end.

31. (New) The muffler according to claim 30, wherein a distance between the closed end of a first of the two resonators and the tubular member differs from a distance between the closed end of the second of the two resonators and the tubular member.

32. (New) The muffler according to claim 29, wherein the resonator set comprises at least one resonator, wherein the resonator has a first end opening to an inner face of the tubular member and a closed second end, and wherein a plane defined by the closed second end is not parallel to a plane defined by the first end.

33. (New) The muffler according to claim 29, wherein a resonator in the resonator set comprises noise absorbing material and a scatter preventative part.

34. (New) A muffler that is configured to discharge exhaust from a machine having one of an engine and a compressor, the muffler comprising:

an outer muffler shell;

a first exhaust tube;

a tubular member formed inside the muffler shell, wherein a portion of the tubular member is arranged inside the muffler shell on an upstream end of the muffler in a direction of exhaust flow, wherein a first end of the tubular member is in fluid communication with the first exhaust tube, wherein a second end of the tubular member is in fluid communication with a space inside the muffler shell, and wherein the tubular member is configured to attenuate acoustic energy of a first frequency band,

first exhaust tube, wherein a second end of the tubular member is in fluid communication with a space inside the muffler shell, and wherein the tubular member comprises a plurality of through holes located on the tubular member's circumferential surface which is configured to attenuate acoustic energy of a first frequency band;

a resonator set protruding from and formed of the portion of the tubular member upstream of the plurality of through holes, wherein the resonator set is configured to attenuate acoustic energy of a second frequency band, which is different from the first frequency band and which modulates the first frequency band; and

a second exhaust tube configured to discharge exhaust in the space inside the muffler shell to the atmosphere.

35. (New) The muffler according to claim 34, wherein the resonator set comprises at least two resonators, and wherein each of the resonators has a first end opening to an inner face of the tubular member and a closed second end.

36. (New) The muffler according to claim 35, wherein a distance between the closed end of a first of the two resonators and the tubular member differs from a distance between the closed end of the second of the two resonators and the tubular member.

37. (New) The muffler according to claim 34, wherein the resonator set comprises at least one resonator, wherein the resonator has a first end opening to an inner face of the tubular member and a closed second end, and wherein a plane defined by the closed second end is not parallel to a plane defined by the first end.

38. (New) The muffler according to claim 34, wherein a resonator in the resonator set comprises noise absorbing material and a scatter preventative part.

39. (New) The muffler according to claim 34, further comprises a partition wall and a plurality of air holes located on the second exhaust tube which is configured to further attenuate acoustic energy of the first frequency band.